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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference A-155677	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB 03/00696	International filing date (day/month/year) 21.02.2003	Priority date (day/month/year) 13.03.2002
International Patent Classification (IPC) or both national classification and IPC H04M11/00		
Applicant ROMERO LOPEZ, Enrique		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 07.10.2003	Date of completion of this report 22.06.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 23999 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Frantzeskakis, D-P Telephone No. +49 89 2399-6023 

**INTERNATIONAL PRELIMINARY
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International application No. **PCT/IB 03/00696**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-5 as originally filed

Claims, Numbers

1-2 received on 27.05.2004 with letter of 21.05.2004

Drawings, Sheets

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-2
	No: Claims	
Inventive step (IS)	Yes: Claims	1-2
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-2
	No: Claims	

2. Citations and explanations

see separate sheet

Citations and explanations in respect of paragraph V:

1. The nearest prior art is represented by document **D1: US-A-5434911** which discloses according to the features of claim 1 (the references in parenthesis referring to document D1) a system for adapting a conventional telephone line to a data and voice transmission network. The network being "local" is simply an obvious alternative of a "network". The system comprises a device for detecting hung up/picked up line, which provides a signal showing open or close line ("line monitor means 22 monitors the line to determine if the line is in use", col.4, lines 3-4); a device for closing or opening the line which provides the data to be transmitted (functionality of the "meter interface unit (MIU)". See, "The MIU is interconnected to the telephone lines... to transmit scheduled meter reading", abstract); a device for detecting a conventional call ("ring detector means monitors the phone line 10 to see if the customer's phone... is being called", col.4, lines 5-7); an exterior connection module ("MIU modem 20", col.3, line 65 and fig. 1); a power supply circuit ("power supply 30", col. 3, line 33); control means ("alert tone detection means 26", col.3, line 22 and "MIU microcontroller 32", col.4, line 48) and a communication protocol. The system uses the electrical power supply and buses from the analogical telephone line itself without using an external power supply or independent wiring ("a capacitor", col. 4, lines 26-28, is used only to make the system more efficient since it has been recognised that "in the on hook mode the amount of current that the MIU can draw from the phone line equals or is less than the allowable leakage current permitted by the applicable regulations, col.4, lines 33-36 and that "The portions of the MIU... can be powered from the phone line's off hook current", col. 4, lines 36-39). The control means on receiving a signal ("a request for the MIU", col.3, line 11) through the connection module transmit a suitable signal to the device for opening and closing the line ("the MIU 6 goes off hook and seizes the phone line", col.6, lines 45-46), the device transmitting message data to be transmitted ("col. 7, lines 64-66").
2. A disadvantage of the system disclosed in D1 is that it is not able to establish a conventional incoming call while the device transmits message data.

Nevertheless, document **D2: US-A-4833618** discloses such a system wherein the device transmits message data to be transmitted while the control means also receive the conventional call signals (D2 : "a system for automatically collecting

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and storing utility data and transmitting the stored data... without interfering with the users use of the conventional telephone line" (abstract and col. 6, lines 42-48)).

3. The main problem relating to the above mentioned system of the closest prior art, is that the data is transferred through the telephone line, after a telephone connection is being established between the device that provides the data to be transmitted ("MIU") and a remote device ("host computer") (D1: col.7, lines 30-32). (See also D2: "initiation of a telephone call... from the remote collection area", abstract; D3: "the MIU would dial host 1 at telephone number...", col.11, lines 46,47; D4: "representations may be in the form of a series of dual-tone signals", col.3, lines 6-8; D5: "engaging the phone line in response to the detect signal"). In this way the line closes ("off-hook") and normal telephone charges are incurred.
4. The present invention overcomes this problem by providing a system to transmit control protocol messages during the openings of the line and without the telephone switchboard recognising any dialling.
5. The subject-matter of the present invention as claimed in respective independent claim 1 is neither disclosed in, nor rendered obvious by the remaining prior art documents cited in the international search report as these documents do not describe the system according to the particular feature combination of the present invention or part thereof as defined in respective independent claim 1.
6. The subject-matter of independent claim 1 is therefore considered to be new and to involve an inventive step (Article 33(2) and (3) PCT).
7. As claim 2 is dependent on claim 1, claim 2 also meets the requirements of Article 33 (2) and (3) PCT.
8. The present invention is susceptible of industrial application (Article 33(4) PCT).

~~Enclosure-1. New set of amended claims~~

1. System for adapting a conventional telephone line to a data and voice transmission local network comprising:

a device (1) for detecting hung up/picked up line, which provides a signal showing open or close line (7);

a device (2) for closing or opening the line (7), which provides the data to be transmitted;

a device (3) for detecting a conventional call;

an exterior connection module (4);

a power supply circuit (5);

control means (6);

and a communication protocol;

characterised in that said system uses the electrical power supply and buses from the analogical telephone line (7) itself without using an external power supply or independent wiring,

said control means (6), which on receiving a signal through the connection module (4) transmit a suitable signal to the device (2) for opening and closing the line (7), which transmits message data to be transmitted, while said control means (6) also receive the conventional call signals,

allows to transmit control protocol messages during the openings of the line (7) and without the telephone switchboard recognize any dialling.

2. System as claimed in claim 1, characterised in that it uses a communication protocol which allows to do a local communication with other systems as the system described herein and therefore allows to discriminate whether the communication received is for the itself equipment fitted with the system or for other equipment.